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09/932,127	08/16/2001	Joseph C. Chan	50R4781	4319

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ROGITZ & ASSOCIATES  
750 B STREET  
SUITE 3120  
SAN DIEGO, CA 92101

EXAMINER
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LEE, RICHARD J

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/932,127

Applicant(s)

CHAN, JOSEPH C.

Examiner

Richard Lee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-25 and 27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25, and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

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1. The applicant's arguments from the amendment filed May 22, 2005 have been noted, considered, and addressed in the following grounds of rejections.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-8, 11-18, 24, 25, and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The particular features of 'repeating said concealing and evaluating with one more macroblock added prior to the previous particular macroblock **such that the concealing and evaluating is done on the combination of the one more macroblock and the previous particular macroblock**, said repeating done by **successively adding one more macroblock to the combination** until all macroblocks in the texture partition have been concealed' as claimed in claim 1, lines 7-11; and 'repeating said concealing and evaluating with one more macroblock added prior to the previous particular macroblock, **the concealing and evaluating being done on the combination of the one more macroblock and the previous particular macroblock**, said repeating done by **successively adding one more macroblock to the combination** until all macroblocks in the texture partition have been concealed' as claimed in claim 24, lines 7-10 are not fully supported by the Specification.

As best understood by the Examiner, the closest/pertinent sections of the Specification and drawings in connection with the new matter claimed features are as follows. The presence of any errors in the texture partition of a video packet is determined (100 of Figure 1A) and the number and location of macroblocks detected with errors are identified (106 of Figure 1A, see also pages 7-8 of the Specification). Error concealment is then provided for those error-detected macroblocks (110 of Figure 1A, and see pages 8-9 of the Specification), which includes motion compensated temporal replacement. The image smoothness of the corrupted video packet macroblocks restored by temporal replacement is then evaluated (112 of Figure 1B, see page 9 of the Specification). The Specification at page 10 teaches that "If this particular point of demarcation has not reached the beginning of the motion partition 206 in the video packet (i.e.  $K = N$ ), at 118, then the process of error concealing by creating motion compensated temporal replacement and evaluating the image smoothness/matching with one more macroblock of concealed texture data is repeated, starting at 110." It is clear from these passages of the Specification that each macroblock identified with an error is being processed individually for concealment and evaluation, until all the corrupted macroblocks within the texture partition are processed for concealment and evaluation. The Specification does not provide support for "concealing and evaluating being done on the combination of the one more macroblock and the previous particular macroblock" and "said repeating done by successively adding one more macroblock to the combination" as claimed in claims 1 and 24.

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3, 5-8, 11-14, 17, 18, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brailean et al of record (5,724,369) in view of Katsavounidis et al (US 2003/0012287 A1) and Zhao et al of record (US 2003/0067981 A1).

Brailean et al discloses a method and device for concealment and containment of errors in a macroblock based video codec as shown in Figures 3, 4, and 6, and substantially the same method for concealing errors in texture partition of a video packet, and computer readable medium containing executable instructions which, when executed in a processing system, causes the system to conceal errors in texture partition of a video packet as claimed in claims 1-3, 5-8, 11-14, 17, 18, 24, and 25, comprising substantially the same determining (i.e., 314 of Figure 6 and see column 5, lines 1-20, column 6, lines 25-47) a particular macroblock within the texture partition where error is detected; concealing (i.e., 316 of Figure 3, 620 of Figure 6, see column 5, lines 21-39, column 7, lines 9-65) the error starting at the particular macroblock; evaluating image smoothness of concealed macroblocks (i.e., MSE of macroblocks, see column 7, line 41 to column 8, line 6); repeating the concealing and evaluating with one more macroblock added prior to the previous particular macroblock (i.e., errors within the video sequence are concealing, which includes the previous error detected macroblock, and any subsequent error detected macroblocks, see column 3, lines 25-32); storing all decoded macroblocks of texture data in the texture partition up to the particular macroblock (i.e., 618 of Figure 6, and see column 7, line 41

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to column 8, line 6); the concealing the error starting at the particular macroblock includes performing motion compensated temporal replacements of macroblocks starting at the particular macroblock (i.e., as provided by 608 of Figure 6); the evaluating image smoothness of concealed macroblocks includes computing smoothness of macroblock boundaries, wherein the smoothness of macroblock boundaries is measured by summing pixel value mismatches between macroblock boundary pixels, wherein the summing pixel mismatches includes storing partial mismatch values, wherein the summing pixel value mismatches includes summing squares of the pixel value differences (i.e., calculating MSE for macroblock boundaries, see column 7, line 23 to column 8, line 6); wherein the pixel value mismatches are computed by reusing the partial mismatch values from previous iterations (i.e., the same MSE mismatch equation (2) at column 7, line 56 is used from frame to frame, wherein  $Y(\beta)$  and  $P(\beta)$  within the equation are considered the partial mismatch values that are being re-used from one iteration to the next, thereby providing the computation by reusing the partial mismatch values from previous iterations as claimed); detecting the error in the video packet (i.e., as provided by 314 of Figure 6), the detecting includes detecting invalid variable length code and inconsistent resynchronization header information (see column 5, lines 21-39, column 6, lines 25-47); and selecting a set of macroblocks includes recovering some of the stored decoded macroblocks, wherein the some of the stored decoded macroblocks include decoded macroblocks up to a macroblock that produced the best image smoothness (i.e., as provided by 350 of Figure 3 and 618 of Figure 6, see column 5, lines 21-39, column 7, line 23 to column 8, line 6).

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Brailean et al does not particularly disclose, though, the followings:

(a) repeating the concealing and evaluating with one more macroblock added prior to the previous particular macroblock such that the concealing and evaluating is done on the combination of the one more macroblock and the previous particular macroblock, the repeating done by successively adding one more macroblock to the combination until all macroblocks in the texture partition have been concealed as claimed in claims 1 and 24; and

(b) selecting a set of macroblocks, including a combination of decoded and concealed macroblocks, that produces best image smoothness as claimed in claims 1 and 24.

Regarding (a), Katsavounidis et al discloses a system and method for decoding of systematic forward error correction codes of selected data in a video, and teaches the conventional error concealment techniques that may be used for each macroblock or macroblocks (i.e., plural/combining macroblocks, see section [0043]). Since Brailean et al teaches the particular repeating of the concealment and evaluating for each macroblock identified with an error, the repeating of the concealment and evaluating for combined macroblocks may certainly be provided within Brailean in view of Katsavounidis et al. Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean and Katsavounidis et al references in front of him/her and the general knowledge of error concealment techniques for macroblocks of data, would have had no difficulty in providing the combined macroblock technique for error concealment as taught by Katsavounidis et al within Brailean et al so that the system of Brailean et al may repeat the concealing and evaluating with one more macroblock added prior to the previous particular macroblock such that the concealing and evaluating is done on the combination of the one more macroblock and the previous particular macroblock, the

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repeating done by successively adding one more macroblock to the combination until all macroblocks in the texture partition have been concealed for the same well known error concealment and evaluating of plural macroblocks purposes as claimed.

Regarding (b), Zhao et al discloses a system and method for performing bit rate allocation for a video data stream, and teaches the conventional use of a combination of features for concealing errors in a video packet, such as a combination of decoded and concealed macroblocks/texture data unit that produces best image smoothness (i.e., replacing the unrecoverable macroblock with a corresponding macroblock from a previous frame and temporal concealment, see sections [0172] and [0174] of page 13). Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean et al, Katsavounidis et al, and Zhao et al references in front of him/her and the general knowledge of video error concealment techniques, would have had no difficulty in providing the combination of decoded and concealed macroblocks/texture data units that produces best image smoothness as taught by Zhao et al as part of the error concealment technique within the video decoder as shown in Figure 6 of Brailean et al for the same well known concealment of video errors with a combination of features in order to produce the best image purposes as claimed.

6. Claims 9, 10, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brailean et al of record (5,724,369) in view of Zhao et al of record (US 2003/0067981 A1) and Moni et al of record (6,697,126).

Brailean et al discloses a method and device for concealment and containment of errors in a macroblock based video codec as shown in Figures 3, 4, and 6, and substantially the same method for concealing errors in texture partition of a video packet and error concealment system



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for texture partition of a video packet as claimed in claims 9, 10, and 19-23, comprising substantially the same error location detector (i.e., 314 of Figure 6, and see column 5, lines 1-20, column 6, lines 25-47) to receive video packets, and determine a particular macroblock within the texture partition where error is detected, and determining a particular location within the texture partition where error is detected; an error concealment element (i.e., 316 of Figure 3, 620 of Figure 6, and see column 5, lines 21-39, column 7, lines 9-65) to conceal the error starting at the particular macroblock, and to conceal the error in texture data starting at the particular location; an image smoothness evaluator (i.e., MSE of macroblocks, see column 7, line 41 to column 8, line 6) to evaluate the concealed macroblocks, and evaluating image smoothness of the concealed texture data; repeating the concealing and evaluating with one more macroblock/texture data unit added prior to the previous particular macroblock/location, the repeating done until all macroblocks/texture data units in the texture partition have been concealed (i.e., errors within the video sequence are concealed, which includes the previous error detected macroblock, and any subsequent error detected macroblocks, see column 3, lines 25-32, and MSE of macroblocks, column 7, line 41 to column 8, line 6); a storage element to store all decoded macroblocks of texture data in the texture partition up to the particular macroblock (i.e., 618 of Figure 6, and see column 7, line 41 to column 8, line 6); and wherein the concealing the error in the texture data starting at the particular location includes performing motion compensated temporal replacements of texture data units starting at the particular location (i.e., as provided by 608 of Figure 6).

Brailean et al does not particular disclose, though, the followings:

(a) the evaluator at least in part summing squares of element value differences in a manner that weighs element value mismatches between macroblocks belonging to different video packets differently based at least in part on different desired qualities of video; wherein pixel value mismatches between macroblocks belonging to different video packets are weighed differently from each other, differences in weighing depending on difference in desired quality of video frames; evaluating image smoothness of the concealed texture data at least in part by assigning first weights to pixel value mismatches between macroblocks in a first video data structure and assigning second weights to pixel value mismatches between macroblocks in a second video data structure, the first and second weights not being identical to each other and each being established based on a respective desired quality of video decoded from the respective video data structure; and wherein the pixel value mismatches between macroblocks that belong to different video packets are configured to weigh more than the pixel value mismatches between macroblocks that belong to the same video packets as claimed in claims 9, 10, 19, and 21; and

(b) a selector to select a set of macroblocks/texture data units, including a combination of decoded and concealed macroblocks/texture data units, that produces best image smoothness as claimed in claims 9, 19, and 21.

Regarding (a), it is to be noted that Brailean et al is interested in maintaining a certain level of quality when concealing the corrupted macroblocks by comparing the boundary of the macroblocks (see column 3, lines 18-32, column 5, lines 1-12, column 7, line 41 to column 8, line 16), but Brailean et al does not particularly disclose the specifics as claimed. However,

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Moni et al discloses an intra-frame video error concealment system as shown in Figures 2-8, and teaches the conventional selective assignment of weights for blocks of pixels at the boundary of an error block within a video packet in order to provide a smooth transition from non-erroneous pixels to pixels corresponding to the error segment, with greater weights being assigned at the boundary between a non-erroneous pixel and a pixel corresponding to the error block (see 82, 84, 86, 88, 94, 96, 98 of Figure 2, 104, 106, 108, 114, 116, 118, 1124, 128 of Figure 3, column 7, lines 30-53, column 7, line 63 to column 8, line 45, column 9, lines 10-44, column 10, line 15 to column 11, line 9), the particular weights for the blocks of pixels are assigned/provided in connection with the desired quality of video (see column 10, lines 1-9). Though Moni et al teaches that the weighting of pixels is generally applied so that the weighting is greatest (i.e. 1.0) at the boundary between a non-erroneous pixel and a pixel corresponding to the error segment, and is reduced in proportion to the distance of the flipped pixels from the boundary of the non-erroneous pixels (see column 8, lines 10-31, column 9, lines 10-20, column 10, lines 1-36) so as to produce a smooth and continuous image thereby improving the quality of an error in the video, Moni et al also teaches that such specific weighting does not necessarily need to decrease after starting at 1.0 at the borders, thereby providing different weighting between pixel blocks belonging to different video packets based on the desired qualities of video (see column 10, lines 1-9, column 12, lines 29-44). It is hence considered obvious to provide the selective assignment of weights for blocks as taught by Moni et al as part of the summing squares of the pixel/element value differences within Brailean et al (i.e., MSE mismatch equation (2) of Brailean et al, column 7, line 56) to thereby provide the weighing of element value mismatches between macroblocks belonging to different video packets differently based at least in part on different

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desired qualities of video, wherein pixel value mismatches between macroblocks belonging to different video packets are weighed differently from each other, differences in weighing depending on difference in desired quality of video frames, evaluating image smoothness of the concealed texture data at least in part by assigning first weights to pixel value mismatches between macroblocks in a first video data structure and assigning second weights to pixel value mismatches between macroblocks in a second video data structure, the first and second weights not being identical to each other and each being established based on a respective desired quality of video decoded from the respective video data structure, and wherein the pixel value mismatches between macroblocks that belong to different video packets are configured to weigh more than the pixel value mismatches between macroblocks that belong to the same video packets, as claimed. And in view of the selective assignment of weights for blocks within a video packet of Moni et al to be provided within the summing of squares of pixel/element value differences of Brailean et al, it is considered obvious that the pixel value mismatches between macroblocks belonging to different video packets in the combination of Moni et al and Brailean et al are configured to weigh more than the pixel value mismatches between macroblocks that belong to same video packets. In other words, since Moni et al teaches the general selective and different assignment of weights for blocks within a video packet, any desired weight selection of blocks within a video packet may be performed, which includes configuring weight more to macroblocks belonging to different video packets as compared with macroblocks belonging to the same video packet as claimed. Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean et al and Moni et al references in front of him/her and the general knowledge of the concealment of macroblocks within video packets, would have had no

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difficulty in providing the selective and different assignment of weights for blocks at the boundary of an error block within a video packet as taught by Moni et al as part of the summing squares of the pixel/element value differences within Brailean et al (i.e., MSE mismatch equation (2) of Brailean et al, column 7, line 56) to thereby provide the weighing of element value mismatches between macroblocks belonging to different video packets differently based at least in part on different desired qualities of video, wherein pixel value mismatches between macroblocks belonging to different video packets are weighed differently from each other, differences in weighing depending on difference in desired quality of video frames, evaluating image smoothness of the concealed texture data at least in part by assigning first weights to pixel value mismatches between macroblocks in a first video data structure and assigning second weights to pixel value mismatches between macroblocks in a second video data structure, the first and second weights not being identical to each other and each being established based on a respective desired quality of video decoded from the respective video data structure, and wherein the pixel value mismatches between macroblocks that belong to different video packets are configured to weigh more than the pixel value mismatches between macroblocks that belong to the same video packets for the same well known selective quality of video and smooth transition from non-erroneous pixels to pixels corresponding to the error segment purposes as claimed.

Regarding (b), Zhao et al discloses a system and method for performing bit rate allocation for a video data stream, and teaches the conventional use of a combination of features for concealing errors in a video packet, such as a combination of decoded and concealed macroblocks/texture data unit that produces best image smoothness (i.e., replacing the unrecoverable macroblock with a corresponding macroblock from a previous frame and temporal

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concealment, see sections [0172] and [0174] of page 13). Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean et al, Moni et al, and Zhao et al references in front of him/her and the general knowledge of video error concealment techniques, would have had no difficulty in providing the combination of decoded and concealed macroblocks/texture data units that produces best image smoothness as taught by Zhao et al as part of the error concealment technique within the video decoder as shown in Figure 6 of Brailean et al for the same well known concealment of video errors with a combination of features in order to produce the best image purposes as claimed.

7. Claims 4, 15, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brailean et al, Katsavounidis et al, and Zhao et al as applied to claims 1-3, 5-8, 11-14, 17, 24, and 25 in the above paragraph (5), and further in view of Talluri et al of record (6,111,916).

The combination of Brailean et al, Katsavounidis et al, and Zhao et al discloses substantially the same method for concealing errors in texture partition of a video packet and computer readable medium as above, but does not particularly disclose performing motion compensated temporal replacements is done for those macroblocks whose motion vectors have changed; wherein the detecting includes detecting receipt of out-of-range motion vectors; and wherein the detecting includes DCT coefficient counts greater than a predetermined amount of approximately 64 pixels for a macroblock and Y/Cr/Cb pixel values out of range as claimed in claims 4, 15, and 16. However, Talluri et al discloses an error resilient encoding and teaches the conventional detection of out of range motion vectors and DCT errors (see column 3, lines 45-56, column 7, lines 18-52). And, in the event that motion vector error is detected as taught by Talluri et al, it is considered obvious that the particular motion compensated temporal

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replacements for macroblocks as disclosed in both Brailean et al and Zhao et al (see 608 of Figure 6 of Brailean et al and section [0172] at page 13 of Zhao et al) may certainly be provided as the desired error concealment technique. Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean et al, Katsavounidis et al, and Zhao et al, and Talluri et al references in front of him/her and the general knowledge of error detections within video coders/decoders, would have had no difficulty in providing the error detecting of motion vectors and DCT coefficients as taught by Talluri et al as part of the error detection process within the combination of Brailean et al and Zhao et al so that error concealment may further be provided to conceal the detected errors purposes as claimed.

8. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Brailean et al, Katsavounidis et al, and Zhao et al as applied to claims 1-3, 5-8, 11-14, 17, 24, and 25 in the above paragraph (5), and further in view of Moni et al of record (6,697,126).

The combination of Brailean et al, Katsavounidis et al, and Zhao et al discloses substantially the same method for concealing errors in texture partition of a video packet and computer readable medium as above, but does not particularly disclose wherein the evaluating instruction includes summing squares of pixel value differences that weighs the pixel value mismatches between macroblocks belonging to different video packets differently as claimed in claim 27. Moni et al discloses an intra-frame video error concealment system as shown in Figures 2-8, and teaches the conventional selective assignment of weights for blocks of pixels at the boundary of an error block within a video packet in order to provide a smooth transition from non-erroneous pixels to pixels corresponding to the error segment, with greater weights being assigned at the boundary between a non-erroneous pixel and a pixel corresponding to the error

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block (see 82, 84, 86, 88, 94, 96, 98 of Figure 2, 104, 106, 108, 114, 116, 118, 1124, 128 of Figure 3, column 7, lines 30-53, column 7, line 63 to column 8, line 45, column 9, lines 10-44, column 10, line 15 to column 11, line 9), the particular weights for the blocks of pixels are assigned/provided in connection with the desired quality of video (see column 10, lines 1-9). Though Moni et al teaches that the weighting of pixels is generally applied so that the weighting is greatest (i.e. 1.0) at the boundary between a non-erroneous pixel and a pixel corresponding to the error segment, and is reduced in proportion to the distance of the flipped pixels from the boundary of the non-erroneous pixels (see column 8, lines 10-31, column 9, lines 10-20, column 10, lines 1-36) so as to produce a smooth and continuous image thereby improving the quality of an error in the video, Moni et al also teaches that such specific weighting does not necessarily need to decrease after starting at 1.0 at the borders, thereby providing different weighting between pixel blocks belonging to different video packets based on the desired qualities of video (see column 10, lines 1-9, column 12, lines 29-44). It is hence considered obvious to provide the selective assignment of weights for blocks as taught by Moni et al as part of the summing squares of the pixel/element value differences within Brailean et al (i.e., MSE mismatch equation (2) of Brailean et al, column 7, line 56) to thereby provide the summing squares of pixel value differences that weights the pixel value mismatches between macroblocks belonging to different video packets differently, as claimed. Therefore, it would have been obvious to one of ordinary skill in the art, having the Brailean et al, Katsavounidis et al, and Zhao et al, and Moni et al references in front of him/her and the general knowledge of the concealment of macroblocks within video packets, would have had no difficulty in providing the selective and different assignment of weights for blocks at the boundary of an error block within a video packet as



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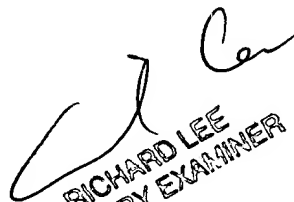
taught by Moni et al as part of the summing squares of the pixel/element value differences within Brailean et al (i.e., MSE mismatch equation (2) of Brailean et al, column 7, line 56) to thereby provide the summing squares of pixel value differences that weights the pixel value mismatches between macroblocks belonging to different video packets differently for the same well known selective quality of video and smooth transition from non-erroneous pixels to pixels corresponding to the error segment purposes as claimed.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Lee whose telephone number is (571) 272-7333. The Examiner can normally be reached on Monday to Friday from 8:00 a.m. to 5:30 p.m, with alternate Fridays off.

  
RICHARD LEE  
PRIMARY EXAMINER

Richard Lee/rl

8/3/05

